claim 9 and amplify issues previously discussed throughout prosecution; and (c) place the application in better form for appeal, should an appeal be necessary. Entry of the amendments is thus respectfully requested.

Applicants gratefully acknowledge the approval of the drawing corrections filed on June 14, 2002. A substitute sheet of formal drawings depicting corrected Fig. 2 is being filed concurrently herewith in a Letter to the Official Draftsperson.

Applicants thank Examiners Perez and Primary Examiner Tamai for the courtesies extended to Applicants' representative during the November 26, 2002 personal interview. Applicants' separate statement of the substance of the interview is incorporated into the following remarks.

The Office Action rejects claims 1-3, 6, 9 and 11 under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,026,558 to Yoshida et al. (Yoshida). The rejection is respectfully traversed.

Anticipation is established only when a single prior art reference discloses each and every element of a claimed invention (RCA Corp. v. Applied Digital Data Systems, Inc. 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984)). Anticipation requires the presence in a single prior art disclosure of all elements of the claimed invention arranged as in the claims. A prior art disclosure that "almost" meets the standard does not anticipate. (Connell v. Sears, Roebuck and Co., 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983)).

As discussed during the personal interview, Yoshida does not disclose a rotary electric machine, comprising ... a cylindrical body circularly surrounding an outer periphery of a coil end portion that is a part of the straight portion of the upper layer coil, which protrudes axially outside of the axial end surface of the armature core and excludes the arm portion of the upper layer coil, the cylindrical body allowing outer grooves provided between

adjacent two of the arm portions of the upper layer coils to open in a radially outer direction, and a resonance later filled in an inner groove defined among adjacent coil end portions in a peripheral direction, the axial end surface of the armature core and the insulating plate as recited in claim 1.

Additionally, Yoshida does not disclose a rotary electric machine comprising ... a cylindrical body mounted on outer perhipheries of the straight portions of the upper layer coils axially outside the axial end surface of the armature core and fixed therewith with the resin insulator, wherein the resin insulator is provided separately from the insulating plate and the cylindrical body, and the cylindrical body is mounted without protruding in an axial direction from a surface of the insulating plate which faces the arm portion of the upper layer coil, thereby opening a groove between the arm portions of the upper layer coils in a radially outward direction, as recited in claim 9.

The Office Action alleges that the cylindrical member 53, 54 of Yoshida corresponds to the cylindrical body of the instant application. However, to constitute anticipation the applied reference must not merely approximate or be almost the same as the patent claim. Rather, there must be identity of invention between the applied reference and the claim in question. The cylindrical body recited in the claims is provided axially between the axial end surface of the armature core and the insulating plate, thereby allowing the outer grooves between the arm portions of the upper layer coils to remain fully open in the radially outward direction. In contrast, as shown in Yoshida at Figs. 24 and 25, the cylindrical member 53 is held axially inside the commutator surfaces (col. 9, lines 64-65 of Yoshida).

Furthermore, Yoshida discloses that the cylindrical member 53 is replaceable with the cylindrical member 54, which covers the entire circumference of the armature core 3 (see Fig. 26 of Yoshida). Additionally, Yoshida discloses that an axial length of the cylindrical member 54 is greater than the axial length L of the armature core 3. Accordingly, the outer

grooves of Yoshida cannot be fully opened in the radially outward direction although the outer grooves appear to be open in the axial direction.

Additionally, in Yoshida the armature 1 is immersed in a liquid insulating material 55 and the liquid insulating material is dropped from above the armature (col. 10, lines 39-42). Accordingly, the outer grooves between the coil end parts 5b are filled with the insulating material 55. In contrast, the outer grooves in the instant application are not filled with resin, or covered with the cylindrical body. Rather, only the inner grooves contain a resin insulator (see Fig. 2 of the instant application). Thus, Applicants respectfully request the rejection of claims 1-3, 6, 9 and 11 under 35 U.S.C. §102(e) be withdrawn.

The Office Action rejects claims 4, 5, 7, 8 and 10 under 35 U.S.C. §103(a) as unpatentable over Yoshida in view of U.S. Patent No. 5,508,577 to Shiga et al. (Shiga). As claim 10 is canceled, the rejection is moot. Applicants respectfully traverse the rejection of claims 4, 5, 7 and 8.

As discussed during the personal interview, claims 4, 5, 7 and 8 are allowable for at least their dependency on claim 1, as well as for the additional features recited therein. For example, neither Yoshida or Shiga disclose or suggest a rotary electric machine wherein the resin layer is provided only underneath the cylindrical body, as recited in claim 5.

The Office Action alleges that Shiga discloses such a resin layer at col. 4, lines 45-52. However, Shiga merely discloses that the periphery of the upper coil trunk 533 of an armature coil 530 is covered with an upper insulating film 540 (e.g., a thin resin film, such as nylon or paper). The upper coil trunk 533 is covered with the upper insulating film 540 and firmly held within the slot 524 together with the lower coil trunk 536 as illustrated in Fig. 7 (col. 4, lines 45-52). Applicants assert that the insulating film 540 is not a resin insulator as recited in the claims, but rather corresponds to an insulating paper such as that disclosed in the specification (see page 5, lines 11-12 and 24-26).

Furthermore, neither Yoshida or Shiga, whether considered singularly or in combination, disclose or suggest a rotary electric machine wherein the cylindrical body is mounted without protruding in an axial direction from a surface of the upper insulating plate which faces the arm portion of the upper layer coil. Rather, in Shiga the cylindrical body 600 protrudes from an axial end surface of the armature coil 520 in the axially outside direction. Additionally, the cylindrical body 600 does not surround the coil end portions 12c (see Fig. 22 of Shiga). Accordingly, the combination of Yoshida and Shiga does not disclose or suggest all of the features recited in claim 4. Thus, Applicants respectfully request the rejection of claims 4, 5, 7 and 8 under 35 U.S.C. §103(a) be withdrawn.

In view of the foregoing, reconsideration of the application is requested. It is submitted that the claims as presented herein patentably distinguish over the applied references and fully meet the requirements of 35 U.S.C. §112. Accordingly, allowance of claims 1-9 and 11 is respectfully solicited.

Should the Examiner believe anything further is desirable in order to place the application in better condition for allowance, he is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

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JAO:JWF/mmc

Attachment:
Appendix

Date: December 11, 2002

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461

APPENDIX

Changes to Claims:

Claim 10 is canceled.

The following is a marked-up version of the amended claim:

9. (Amended) A rotary electric machine, comprising:

an armature core having a predetermined number of slots;

an armature coil having a predetermined number of lower layer coils and upper layer coils installed in double layers in each of the slots against the armature core, the lower layer coils and the upper layer coils each having a straight portion and an arm portion bent generally perpendicularly from the straight portion, arm portions of the upper layer coils constructing commutator segments of a commutator;

brushes held for sliding contact with the commutator segments;

an insulating plate interposed for insulation between the arm portion of the lower layer coil and the arm portion of the upper layer coil which are provided axially outside of an axial end surface of the armature core;

a resin insulator filled in an inner groove defined among adjacent straight portions of the upper layer coils, an axial end surface of the armature core and the insulating plate; and

a cylindrical body mounted on outer peripheries of the straight portions of the upper layer coils axially outside of the axial end surface of the armature core and fixed therewith with the resin insulator,

wherein the resin insulator is provided separately from the insulating plate and the cylindrical body, and the cylindrical body is mounted without protruding in an axial direction from a surface of the insulating plate which faces the arm portion of the upper layer

coil, thereby opening a groove between the arm portions of the upper layer coils in a radially outward direction.